Linking Childhood Lead Poisoning and Developmental Disabilities in Florida

State EPHT Team

Greg Kearney, RS, MPH
Epidemiologist, Project Manager
Chris DuClos, MS
GIS Manager

David R. Johnson, MD, MS, DABT, FACOEM
Principal Investigator

University of Miami Developmental Epidemiology Team

Keith G. Scott, Ph.D.

Marygrace Yale Kaiser, Ph.D.

Carrie Lazarus, M.S.

Tony Gonzalez, B.A.

Trading Partner Acknowledgement

The studies are conducted
under an agreement with the
Florida Department of Education.

Aims of the DET

1. Assist in planning for the provision of services.
2. Help identify groups that would benefit from the provision of early intervention.
3. Help identify conditions that lead to the need for special education services.

The Florida Childhood Lead Poisoning Prevention Program (CLPPP)

STATEWIDE BLOOD LEAD SURVEILLANCE

- CLPPP began conducting statewide blood lead surveillance in 1993.
- Data is housed at the Florida Department of Health.
- Blood lead level results are entered, checked for quality, and merged to the main database.

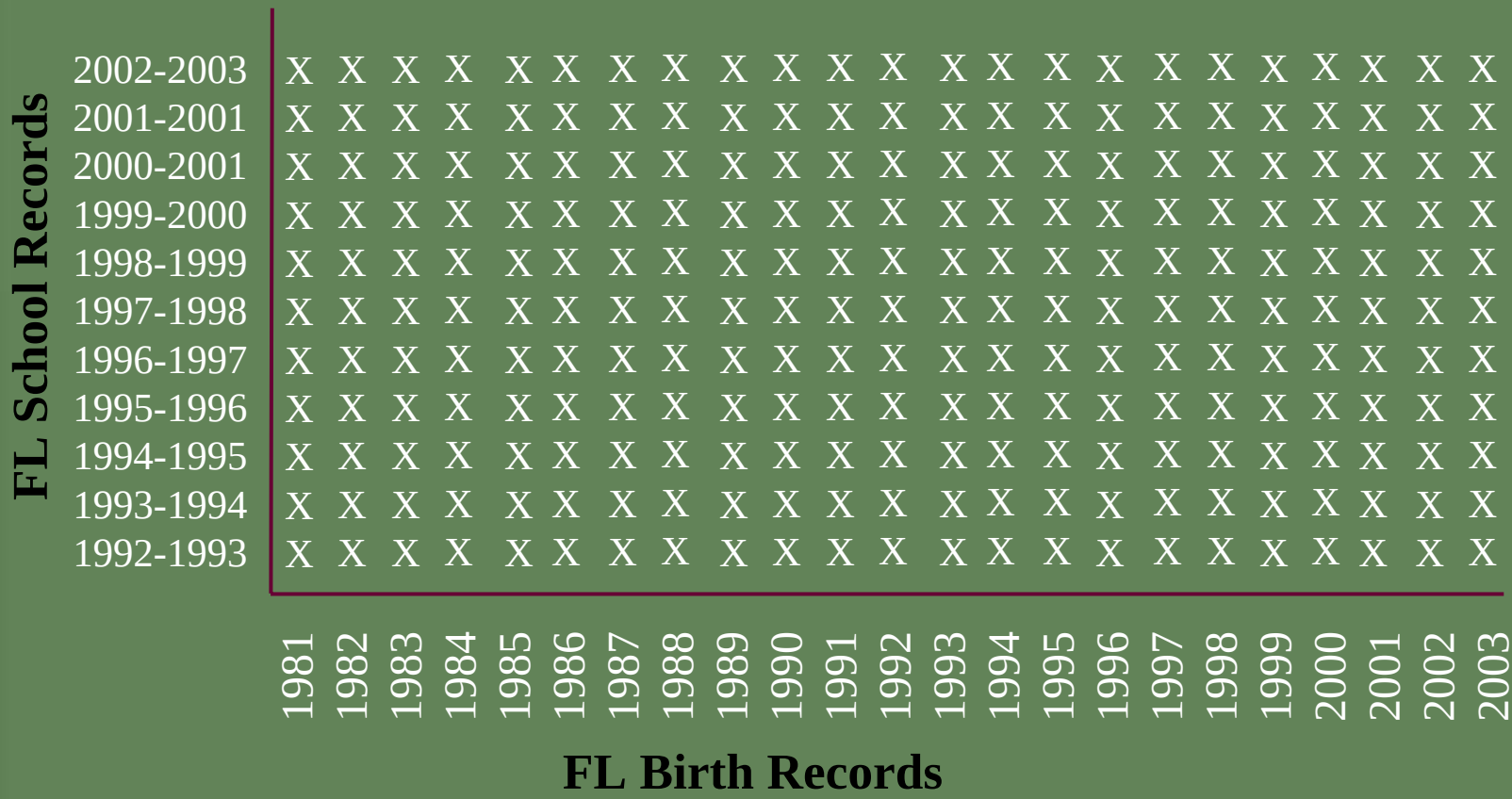
Exposure Data Set

- ***Patient Information*** (Name, Date of Birth, Ethnicity, Race, Gender, Address, Medicaid #, Age at Test)
- ***Provider Information*** (Name, Address)
- ***Lab Information*** (Name, Address)
- ***Test Information*** (Report Type, Test Type, Date of Blood Draw, Date Sample Received, Date Sample Reported, Result – Blood Lead Level)

Outcome Data Set

- ***Demographics*** (school number, district number, race/ethnicity, sex, dob, grade, native language, free lunch eligibility)
- ***Exceptionality (Disability Classification)*** (primary exceptionality: Mental Retardation, Behavior Problems, Autism)

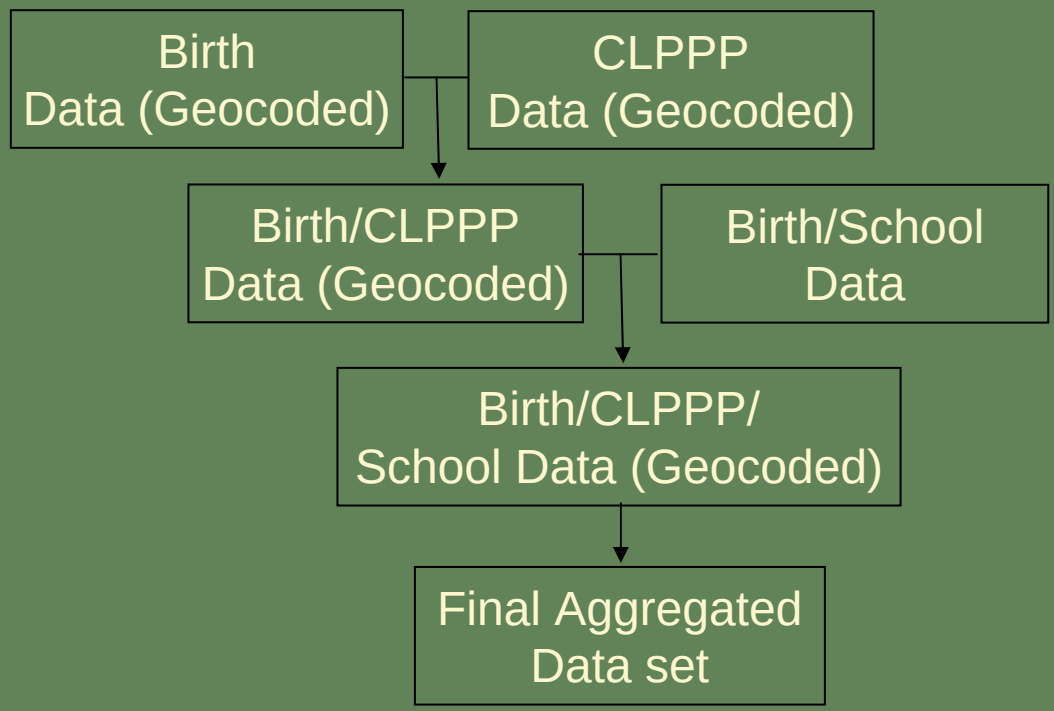
Linked Data Set



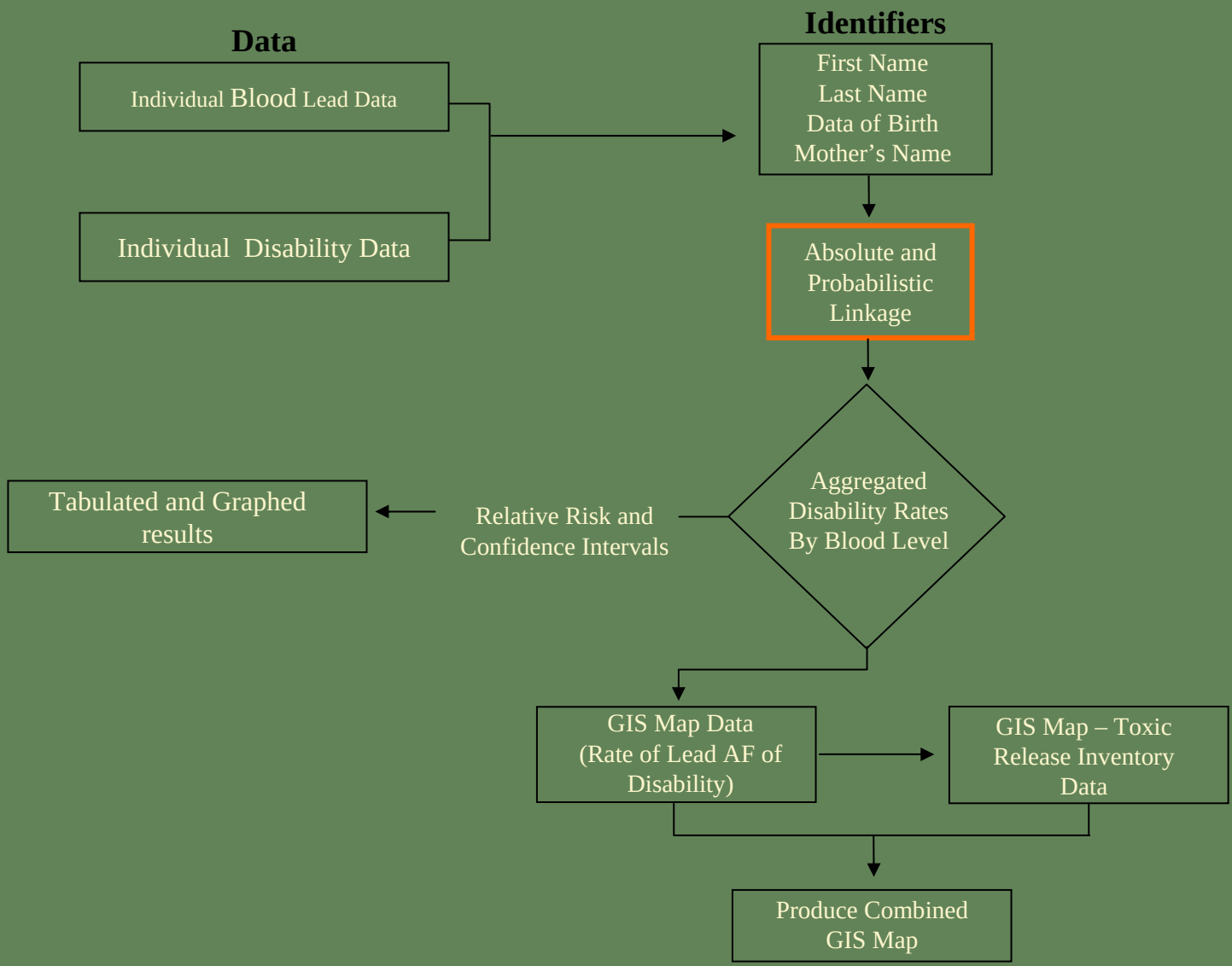
FL Birth Records: 139,000-196,000 records/yr

FL Public School Data: 2.3-2.8 million records/yr

New Linkage with Exposure Data Birth/School/CLPPP



Data Linkage



Expected Products

Linked Disability/Exposure Data Set
Controlled for Major Confounders

e.g. Parental Education

Birthweight Education

Gestational Age

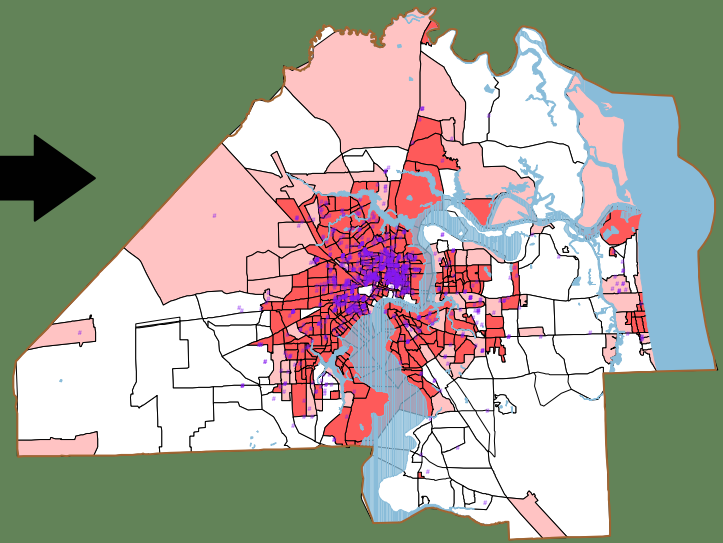
Expected Products

Controlled Study of Lead Exposure

Dose/Response Relationship

Blood lead level and disability rates

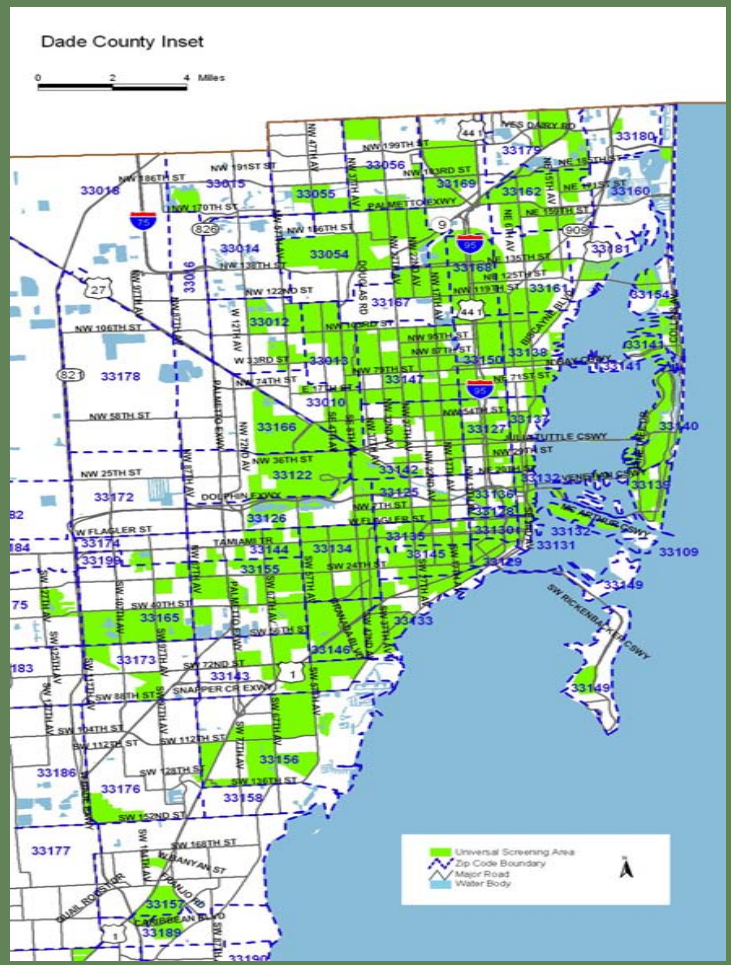
Develop map of validated high-risk areas based on disability/exposure



Universal Screening Areas for Childhood Lead Poisoning

http://www.doh.state.fl.us/environment/community/lead/CountyMap.html

- Screening areas based on older housing

All Florida county maps on the internet

e.g. Miami-Dade County